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ABSTRACT

Arguing that the news media are about to adopt digital imaging systems that will have far-reaching implications for the practice of journalism, this paper discusses how the news media is expected to adopt the new technology and explains why the marriage of journalism and digital imaging will create ethical issues with respect to photo manipulation that need to be resolved. The paper makes several recommendations for photographers and journalists. Reference citations are included. (RS)

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Ethical Implications of Digital Imaging in Photojournalism

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Ethical Implications of Digital Imaging in Photojournalism

The news media are about to adopt digital imaging systems that will have far-reaching implications for the practice of journalism.

That is the premise of this paper. First, we show how we expect the news media to adopt widely and quickly this new technology. In doing this, we discuss the advantages of the adoption of digital imaging by the news media, the three major hurdles to adoption, and the prospects for resolution of these problems.

After discussing the news media's stakes in digital imaging, we explain why we believe the marrying of journalism and digital imaging will create ethical issues that need to be resolved.

The computer revolution has already affected the lives of every person in the industrialized world. Hand calculators, videocassette recorders, televisions, and automobiles contain tiny computers that 20 years ago would have filled a room. In 1970, an IBM 360 computer that occupied a room 20 square feet had less processing power and speed than an accountant's pocket calculator retailing today at $120.[1]

Computers have been making inroads in the area of photography, as well. Camera manufacturers have been working on the development of filmless cameras: film is replaced with electronic photosensitive sensors that interpret the light coming in as electrical impulses and send the signals to internal digital processors for storage, usually on transportable floppy disks. Both Canon Corp. and Nikon have recently began marketing filmless still-video cameras, and three others have been introduced in prototypes by Sony, Panasonic and Copal.[2] Because the cameras usually rely on video imaging technologies, many are being called "still-video cameras." Because the cameras and external equipment that make this technology

useful employ digital information, we will refer to them here as "digital imaging" systems.

Three problems have hampered rapid adoption of digital imaging. The first and most important is that the imaging resolution in these devices, compared to film, is poor. The Canon RC-760 digital camera, for example, has a resolution of 600,000 pixels, or picture elements. Traditional film images do not consist of pixels but, for comparison purposes, each light-sensitive silver-halide crystal can be considered as a picture element. Kodachrome film, the acknowledged sharpness leader, has about 20 million elements per frame.[3] It is only a matter of time, however, before the new digital imaging systems produce images with resolutions acceptable to even the highest-quality magazines.

Secondly, digital cameras are considerably more expensive than more traditional cameras. For example, the Canon RC-470 camera system with player and video printer will retail near $4000, compared to the traditional top-of-the-line Nikon F4 camera which retails at half that. While that will inhibit early adoption generally, it is not likely to be a major consideration for photojournalists, for whom the benefits of the new technology will outweigh the extra expense. Furthermore, as digital imaging systems begin to be mass produced, prices will substantially drop.

The third problem inhibiting adoption of the new technology is no standardization of formats. Many of the digital cameras being produced are basing their formats on compatibility to National Television Standards Committee (NTSC) video technology which in the U.S. uses 525 scan lines. NTSC is the standard electronic format used in the United States for broadcast production and transmission. But high density television may change all that. HDTV uses 1125 scan lines, providing much sharper images. The higher resolution video images will

make cameras that are based on NTSC standards less attractive. Until the issue is resolved, adoption will be slowed.[4]

Despite these hurdles, the news industry appears poised to adopt digital imaging systems. A survey conducted by the American Society of Newspaper Editors in 1987 asked professional journalists about their readiness to adopt these new production technologies. Ninety-one percent responded favorably, with 53 percent reporting extreme eagerness to have the new technologies made available as soon as possible.[5] Due to the news industry's overriding need to get information out quickly, this is not surprising.

Digital imaging is on the verge of readiness for news gathering purposes. The Associated Press ran a trial using a digital camera at the inauguration of President George Bush and had the image of his swearing-in being transmitted to newspapers around the world within 40 seconds of the event.[6] At many news gathering facilities parts of the total system are already in operation. The major newsweeklies regularly use satellites to beam in digital versions of photographs taken at major news events.[7] Practical systems for the rapid transmission of still video images are beginning to appear. Kodak is marketing to news gathering industries a still video transceiver that can send a still video image in under 60 seconds over standard phone lines.[8]

The ability to transmit a digitized image anywhere around the world in minutes is a major reason that news agencies should be expected to adopt the technology first and foremost. Photojournalists often work in unfriendly nations where confiscation or destruction of irreplaceable film is a constant threat. Not having to cross borders with physical materials should be a great boon to photojournalists and a great incentive for the adoption of the new technology.[9] Within the next decade electronic transmission of photographs may well become commonplace, with almost every

successful commercial photographer and photojournalist routinely transmitting images to clients as electronic data.[10] Les Sintay, former picture editor of UPI's Miami bureau, opened Digital Visual Communications in November, 1988, "to help clients get photos of their events to the appropriate media in a timely fashion." He offers a mobile photography service that can go to events, and electronically transmit photos directly to the media using a digital image transmitter and a telephone hookup.[11]

The production end of the printing process also is becoming more computerized and that, too, will encourage photographers and news organizations to invest in the new imaging technology. The majority of major U.S. newspapers are already highly computerized, from reporters to pressrooms. Almost every newspaper in the country, no matter how small, now has in-house computer terminals for reporters and editors. This use of computers is beginning to extend both beyond the newsroom, to the field, and beyond reporters and editors, to photographers. At the launch of flight 41D of the Space Shuttle Discovery in 1985, almost every reporter for a major newspaper on the scene had a portable computer in the makeshift press room. *Time* photographer Shelly Katz estimated that the majority of photographers covering the 1988 presidential campaign were traveling with portable computers to communicate with their editors via electronic mail.[12]

Computers are also rapidly replacing traditional process cameras long used to produce the page negatives and halftones from which the printing plates are produced. It is estimated that by the year 2001, the vast majority of photographs selected for reproduction in the mass media will either begin as electronic photographs or be transformed into digital information during the production process.[13] The Associated Press is expanding its use of electronic darkrooms for its

major bureaus in Chicago, Los Angeles and Washington, D.C.; the technology for electronically cropping and enhancing photos has been in use in AP's New York offices since 1977.[14]

Having images digitized in the press production process have real advantages, many of them economic. Zygmunt Switkowski of Kodak's Photographic Products Group said he expects digital imaging to be adopted most readily by the news media because "the considerations of immediacy will far outweigh the very discernable difference in picture quality. Speed is the one area where silver halide is inconvenient."[15]

Traditional halftoning methods using silver-based films and chemicals are also more expensive and require highly trained technicians. Then, the halftones need to be manually stripped into the page negatives, a slow step at a stage in the process when dispatch is imperative. The composited negatives then are contact printed onto photo-sensitive plates which carry the ink on press. In contrast, digitized imaging systems can take the files produced by reporters and editors, combine them with digitized photographs converted into halftones, size and place them on the page with files from the advertising department's computers and output the completed page spreads as either orthochromatic negatives ready for plate-making or as press-ready plates, one for each color.

Some major newspapers already have decided that a total electronic highway of digital images from photographers to and through the pressroom is not only an engineering reality but a business necessity. In separate presentations at a 1986 ANPA operations conference in Atlanta, both ANPA Vice President William Rinehart and *Baltimore Sun* Vice President for Operations, Louis Franconeri, said they expect silver-based film photography at newspapers to be replaced soon by

electronic photography.[16] Electronics would be able to handle the full spectrum of graphics, including color pictures, in a fraction of the time necessary with today's silver-based film photography. In the long run, the new systems are expected to be cheaper, faster and provide more consistent quality.[17]

Another attraction of digitized images is that there is no generation loss from the making and reduplicating of successive copies. Once an image has been digitized, as one writer put it, "the electronic information can be almost endlessly manipulated . . . offering creative potential which has yet to be fully realized or exploited."[18]

Until recently, this imaging technology has been affordable only to the larger newspapers and chains. Within the last year, however, the ability to digitize photographs and manipulate the digital information at even magazine-quality resolutions has become affordable to any person willing to invest in a mid-priced personal computer. Programs such as Aldus' Snapshot and Letraset's Image Studio allow users to put black-and-white photographs on screen and modify them with electronic versions of professional retouching techniques. With the Letraset program, for example, a photographer could remove an unsightly telephone pole from a country scene. The program will automatically duplicate sky, clouds, or trees from elsewhere in the photo and fill in the areas where the poles once stood.[19] Recent releases of digital imaging programs for microcomputers such as the Macintosh and the IBM-PC should greatly accelerate adoption of the new technology.

The adoption of digital photography raises important ethical questions. With the ability to create digital images comes the ability to manipulate the digital

information easily, completely, and transparently. Digital information, unlike traditional photography, can be radically modified with no loss of resolution or evidence that the information has been altered.

The ability to manipulate images in photography has existed since photography itself, but it has never been especially easy, and to do it well took skills beyond the ability of most photographers. Commercial photographers rely heavily on camera tricks such as multiple exposures and in-camera masking, and darkroom tricks such as dodging and burning in, solarizations, and posterizations. If those tricks cannot create the effects the photographer desires, there is always the skilled hand of the airbrush artist to repair or create what the camera and darkroom cannot. The airbrush artist's days are numbered in the advertising business, however, due to the more powerful capability of computerized retouching and scanning equipment. The use of this equipment is becoming so frequent and common in advertising that it is hard to find a photograph in a print ad that has *not* been manipulated or retouched.[20]

But advertising is not photojournalism. Photojournalists usually do not have the luxury of time or money that make photo manipulation a viable tool and they consider themselves bound, like other types of news professionals, by journalistic codes of conduct. Unfortunately, ethical standards in the area of news photography are vague.

The American Society of Newspapers Editors' code of ethics, for example, has nothing specific to say about photography but addresses the question of "truth and accuracy" generally. The code states: "Good faith with the reader is the foundation of good journalism. Every effort must be made to assure that the news

content is accurate, free from bias and in context, and that all sides are presented fairly."[21]

Some media organizations have in-house guidelines that are considerably more specific. During its experimental period from 1934 until publication of the first issue on November 23, 1939, *Life* magazine initiated as part of its working philosophy the principle that the photograph should not be retouched except in the rarest of instances. Exception was permitted only on grounds of taste in a photograph otherwise desirable for use, or to remove obvious and distracting defects, usually in background areas where retouching could be done without destroying accuracy of representation. There was no attempt to convert a bad photograph into a good one with a brush. If a picture was important or interesting enough, it was used unretouched, even though of inferior quality.[22] That same *Life* philosophy holds today. Tom Bentkowski, *Life* magazine's director of design, said recently, "A photograph that represents an actual situation can never be manipulated in good conscience."[23]

Textbooks also offer some guidance on photo manipulation. A popular editing text offers the following instructions regarding cropping: "Eliminate distracting elements. The editor should crop in essential points of the message the photo is trying to communicate and crop out distracting elements such as door knobs, poles, areas of dark space, foreground floors, or even print flaws such as visible scratches on negatives."[24]

While these guidelines help, there is still much confusion about what is acceptable image manipulation in the news industry. The new digital imaging technology brings this crisis to a head. The crux of the issue is where to draw the line between legitimate editing (including cropping and retouching) and improper

editing that results in falsifying the record. Sometimes, the distinction is hard to make. Consider the following:

•In 1984, Tom Bentkowski, then working for *Time* magazine, erased a walkie-talkie antenna that appeared to stick out of the chin of fallen Olympian runner Mary Decker. Of the retouching, Bentkowski later said he "has qualms about it."[25]

•In February 1982, *National Geographic* magazine digitally shifted one of the great pyramids at Giza in a cover photograph.[26] Robert Madden, director of layout and production, explained that the original photo as cropped to fit the cover would have left the crest of the rightmost pyramid out of the picture. To clarify to the reader that the strong diagonal line running off the page was another pyramid, the pyramid was shifted to include its peak. In the editor's words, it was done to "change the photographer's perspective." The manipulation was not explained to readers in the pages of the *Geographic* but was admitted and explained to the press after a staff photographer mentioned it during a seminar in 1983.[27]

•For his ambitious photojournalistic retrospective, Collins Publishers' Project Director Rick Smolan moved a tree on the cover of *A Day in the Life of America.* Smolan said that "the cover is like an advertising for the contents and thus can be altered, but the inside pictures are sacrosanct." [28]

Compounding the problem of deciding just what are acceptable photojournalistic practices is the news industry's trend toward increasing reliance upon freelancers and stock photo suppliers. As one writer put it, "Money constraints at magazines have made staff photographers about as rare as white rhinos, and freelancers, brokered through photo agencies, are expected to fill the breach."[29]

Although the use of freelancers and stock houses may solve economic problems it may also create ethical ones due to the editor's loss of control. On July

19, 1987 the Sunday *New York Times* ran a photograph depicting crime in Miami. In actuality, the photo had been a staged corporate shot for the Westinghouse Corp. taken years earlier. Not only was the photograph not of an actual news event, but Olivia Auboyneau, the photographer who claimed to have taken it, had photographed it from another photographer's print and passed the work off as her own. The original photographer, Bob Bender, had died in 1985. The photographic essay was supplied to the *Times* by the New York Office of Sipa Press, an international news photo agency.[30]

The more persons involved in the process between editors and photographers, the higher the likelihood that misrepresentation or error will occur.

Another problem is multiple-hat photographers. Many freelancers, by necessity, wear many hats, doing advertising work one day, and illustrating a newsmagazine article the next. Fulvio Roiter works primarily as a photojournalist but he also sells his work through a stock agency. Roiter took an engaging news photograph of three young girls dressed in nuns' habits at the Venice Carnival. He also placed the picture with a photo supply agency. The photo then appeared in a series of print advertisements for Ballygowan Sparkling Spring Water. One of the trio now appeared to be holding a bottle of Ballygowan, deftly inserted at the production stage.[31]

Because they use the same basic process—photography—to get both news and non-news pictures, and because they may even use the same photograph for both news and non-news purposes, and because they may work simultaneously for news and non-news organizations with different standards of acceptance, multiple-hat photographers may be especially susceptible to ethical lapses. Freelance photographers, lacking a close working relationship with editors or bonds of loyalty

to their publications, may not be as motivated as are staff photographers to abide by journalistic ethical codes.

Ethical lapses, of course, are not limited to freelancers. Even seasoned factual photographers may fall prey to temptation. For one shot, David Hiser, a well known photographer working for *National Geographic's* book division, asked writer and friend Bill Ellzey to hold an uncooperative turtle on the ground. He then covered Ellzey's arm and hand with leaves to recreate a natural-looking scene. The shoot was considered a success, Ellzey said, but he questioned the ethics of his friend, who justified it because of time and budget restraints.[32] Holding a wild animal and rearranging the environment is not regarded by most photographers as a legitimate way to get a difficult nature shot.

In another incident, Norman Zeisloft, a veteran photographer for the *St. Petersburg Times and Evening Independent* attempted to liven up routine picture coverage of a football game by asking a barefoot fan to print "Yea, Eckerd" on the soles of his feet. The student agreed, his girlfriend did the artwork, and Zeisloft got his picture. A photographer by the rival *Tampa Tribune,* however, photographed Zeisloft in the act of staging the shot. Zeisloft was fired.[33]

These examples provide evidence for the occasional disregard of professional ethics by seemingly principled photographers. When it is easy to do and impossible to detect, the doctoring of images will be, for some, even more difficult to resist.

Since a loss of credibility with the public could be disastrous financially, newspapers and other journalistic periodicals have economic reasons to uphold ethical standards. Even assuming that most editors and publishers are of high ethical standards, there is still the problem of the sources of the images. In the near future, when digital photographs arrive in editors' consoles from strangers around

the world, how will they know whether or not those dramatic photos have been manipulated prior to transmission? They will not.

A social question raised by the introduction of easy-to-do photo manipulation is whether a knowledge gap will develop between viewers of different social levels as the result of differing levels of awareness about photo manipulation by photographers and editors. There is some evidence that a knowledge gap already exists. In a recent issue of *Parade* magazine the following appeared in a question and answer column:

> Q. On July 17, you wrote that Princess Di had never posed as a centerfold model for a men's magazine. You may be surprised to learn that in a *Playboy* magazine called *The Parody*, Di appears in the foldout, exposing more than her pearly white teeth. -- Mike Belk, Indian Trail, N.C.
>
> A. To the many readers who have written us about that nude photo of Diana in *Playboy* magazine, here are the facts: In the winter of 1983, a magazine titled *Playboy — The Parody* was published by Taylor/Shain Inc., which is not the company that published *Playboy*. It carried the cover line "Our Reigning Playmate -- Lady Di -- A Right Royal Spread." Moreover, the centerfold revealed Di as "Miss Wales," in all her pristine nakedness. What it did not reveal was that the photo was a composite, consisting of Diana's head superimposed on some other young lady's curvaceous body.[34]

An informal content analysis of a broad spectrum of periodicals reveals that information on the issue of news photo manipulation has appeared almost exclusively in "high tech" and specialty publications to which members of the public

are not likely to be exposed. The two exceptions were an article in *Life* magazine's recent anniversary issue, and an easily overlooked discussion appearing on the table of contents page of the March 1988 issue of *Texas Monthly* which referred to image manipulation of that issue's cover photo.[35]

Will this apparent gap in knowledge lead to a credibility gap? To what extent do members of the public believe the photographs they see published? Is the majority of the populace aware that advertising photographs are routinely modified? This raises another issue, that of categorization of photo images. For the sake of analysis by journalists and researchers, we propose that photographs in journalism be categorized by function: (a) illustrations, both advertising and editorial; (b) documentary, news and pseudo; and (c) commentary, editorial. Like most classification schemes, however, there are cases that do not fit neatly into one or another category. Research may show that each of these classifications may hold its own believability quotient. More importantly, it may show that these classification schemes do not exist in the public's perception, which could greatly complicate assignment of credibility values to classes of photographic material.

The issue will become more complicated as digital photography starts to replace traditional methods and unethical practices become much easier to perform. Unless the news media address the problem of potential abuse of the new technology prior to its widespread adoption, the media themselves may suffer a loss of credibility as examples of misuse almost inevitably begin to emerge. Media credibility, like faith itself, can be damaged more easily than it can be rebuilt.

We recommend that professional photographers and organizations adopt a framework for informing editors of the nature of any digital photo manipulations with each submission. When a digitized image is faxed or otherwise transmitted to a

news network by a freelance or other photographer not under regular employment by the news outlet (be it a newspaper, broadcast channel, or wire service) a disclaimer should be sent to inform editors of any and all digital manipulations that have been applied to the image. A model of such a disclaimer might read as follows:
" This photograph has not been modified in any way that is incompatible with standard photojournalistic practice as suggested by the Association of Newspaper Editors and Publishers' Code of Ethics. Manipulation of the image has only been applied in regard to enhancing its reproduction quality for news purposes. Such manipulation includes and is limited to ❑digital sharpening, ❑overall contrast enhancement, ❑overall contrast reduction. Any manipulations beyond the scope of the above are outlined in detail in the paragraph that follows."

We further recommend that professional photographic society memberships, such as the Professional Photographers of America, and the American Society of Magazine Photographers, should address the issue in their own codes of ethics, especially in the journalistic divisions. A recommendation that the use of such a disclaimer be adopted by members of such organizations and be included in their own codes of ethics will help minimize resistance to the use of digitized images coming from photographers who are members.

Editors should make it a practice to use only digital images from freelancers that are accompanied by such a disclaimer or from accredited members of organizations that have adopted a code of ethics that is compatible with standard journalistic practice. We recommend further that editors should adopt the policy of printing notification of the use of digitally manipulated images they use.

There are also legal implications that the new technology will raise. The Copyright Act of 1976 was supposed to give photographers all rights to their work unless otherwise specified in writing. But the question of who owns the rights to images manipulated and composited from images taken by others has not been satisfactorily resolved by the courts. Recent litigation involved a photograph by Bill Allard appearing in one of his books published by the New York Graphic Society in cooperation with Little, Brown and Company. A freelancer hired by *Esquire* magazine blew up a copy of Allard's photograph for use as a background in a photographic editorial illustration. The photographer admitted to it, and said he did this frequently in creating his own "collages." He said he did not believe it was necessary to credit the different pieces used in his work. *Esquire*, however, settled the case with Allard before it reached the courts.[36]

Another legal problem raised by the new technology is whether digital photography will be permissible in a court of law as evidence. Digital images that can be retouched or changed with absolutely no evidence of modification are unlike traditional photographic prints that can be compared to the original negatives from which they are made. Negatives that have been retouched can be identified as such easily by a trained eye and with special techniques such as ultraviolet imaging.

Another problem the new technology may aggravate is that of deliberate misinformation tactics used by political entities. Governments and other political powers around the world have used photo manipulation to achieve their own ends in the name of national security, internal peace, and so forth. The Russians have made common practice of doctoring photographic images when it suited their needs. In a picture published in 1961 by the leadership of the Soviet Union there appears three Soviets prominent in the early space race: Yuri Gagarin, Sergei Korolev, and Kiril

Moskalenko. In obstensibly the same photograph published 20 years later, Moskalenko was airbrushed completely out of the picture.[37]

In a major turn of events, the Chinese also recently have admitted to embellishing their "public images." The Chinese recently exhibited a series of photographic forgeries by former party propagandists. One memorable picture portrayed a young woman offering her breast to feed a soldier wounded in the 1979 war with Vietnam. The Chinese now admit the picture had been faked, with the woman's image superimposed on that of the soldier.[38]

It is probably safe to assume that under certain circumstances political groups will take advantage of the new technology to achieve their goals. Now, however, it will be almost infinitely easier to accomplish such goals. Editors, publishers, reporters, photographers and other media practitioners may choose to ignore these ethical, social and legal issues but soon they may wish they had not.

NOTES

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[12]Joy Hart, "Computing on the Campaign Trail," *Photo District News, Midwestern Edition*, June 1987, p. 44.

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[15]Erin Hennessey, "Photo District News Midwest," *Photo District News, Midwestern Edition*, Oct. 1987, p. 9.

[16]George Garneau, "Electronic Photos for Newspapers," *Editor & Publisher*, July 12, 1986, p. 30.

[17]*Ibid.*, p. 30.

[18]O'Connor, *op cit.*, p. 26.

[19]*Ibid.*, p. 28.

[20]Mark Lapin. "Fanciful Fabrications," *Photo District News, Midwestern Edition*, October 1987, pp. 1, 32.

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[24]Harry W. Stonecipher, Nicedward C. Nicholls and Douglas A. Anderson, *Electronic Age News Editing* (New York: Harper & Brothers, 1952), p. 42.

[25]"When Seeing Isn't Believing," *op cit.*, p. 160.

[26]*Ibid.*, p. 160.

[27]Robert Madden, Director of Layout and Production, *National Geographic*, personal communication, March 13, 1989.

[28]"When Seeing Isn't Believing". *op. cit.*, p. 160.

[29]Joe Gioia, "*New York Times* Runs Ad As News," *Photo District News, Midwestern Edition*, September 1987, pp. 1, 22.

[30]*Ibid.*, p. 1.

[31]Tom Hall, "Sparkling Nuns or Not," *Photo District News, Midwestern Edition*, July 1988, p. 1.

[32]Bill Ellzey, "David Hiser, A Usin' Horse," *Photo District News, Midwestern Edition*, October 1988, p. 72.

[33]H. Eugene Goodwin, *Groping for Ethics in Journalism* (Ames Iowa: Iowa University Press, 1983), pp. 178, 9.

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[34]Walter Scott, "Personality Parade," *Parade*, September 18, 1988, p. 2.

[35]J.D. Stout, *Texas Monthly*, March 89, pp.1, 3.

[36]Casey Allen, "Go West," *Studio Photography*, July 1988, pp. 42, 44.

[37]"Bye-Bye, Boris, a Crash Course in Russian Photo Fakery," *Life*, December 1986, p. 67.

[38]"Bejing Double Take," *U.S. News and World Report*, March 28, 1988, p. 11.